



12AV7

MEDIUM-MU TWIN TRIODE

9-PIN MINIATURE TYPE

12AV7

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Heater Arrangement	Series	Parallel	
Voltage	12.6	6.3	ac or dc volts
Current	0.225	0.45	amp

Direct Interelectrode Capacitances:

Unit No.1 Unit No.2

Without external shield:

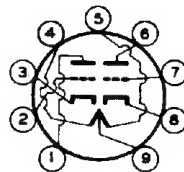
Grid to plate	1.9	1.9	$\mu\mu\text{f}$
Grid to cathode and heater.	3.1	3.1	$\mu\mu\text{f}$
Plate to cathode.	0.24	0.24	$\mu\mu\text{f}$
Plate to cathode and heater	0.5	0.4	$\mu\mu\text{f}$
Plate to grid and heater. .	2	2	$\mu\mu\text{f}$
Cathode to grid and heater.	6.9	6.9	$\mu\mu\text{f}$
Cathode to heater	3.8	3.8	$\mu\mu\text{f}$

With external shield, JETEC No.315, connected to cathode, except as noted:

Grid to plate	1.9	1.9	$\mu\mu\text{f}$
Grid to cathode and heater.	3.2	3.2	$\mu\mu\text{f}$
Plate to cathode.	0.24	0.23	$\mu\mu\text{f}$
Plate to cathode and heater	1.3	1.6	$\mu\mu\text{f}$
Plate to grid, heater, and external shield	2.8	3.2	$\mu\mu\text{f}$
Cathode to grid, heater, and external shield . .	7	7	$\mu\mu\text{f}$
Heater to cathode	4	4	$\mu\mu\text{f}$

Mechanical:

Mounting Position Any
 Maximum Overall Length 2-3/16"
 Maximum Seated Length 1-15/16"
 Maximum Diameter 7/8"
 Bulb T-6-1/2
 Base Small-Button Noval 9-Pin (JETEC No.E9-1)
 Basing Designation for BOTTOM VIEW 9A

Pin 1-Plate of
Unit No.2Pin 2-Grid of
Unit No.2Pin 3-Cathode of
Unit No.2Pins 4,9-Heater of
Unit No.2Pins 5,9-Heater of
Unit No.1Pin 6-Plate of
Unit No.1Pin 7-Grid of
Unit No.1Pin 8-Cathode of
Unit No.1Pin 9-Heater
Mid-Tap

JUNE 14, 1954

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA

12AV7



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MEDIUM-MU TWIN TRIODE

AMPLIFIER - Class A₁

Values are for Each Unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	300 max.	volts
GRID VOLTAGE:		
Negative bias value	-50 max.	volts
PLATE DISSIPATION	2.7 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode .	90 max.	volts
Heater positive with respect to cathode .	90 max.	volts

Typical Operation and Characteristics:

Plate Supply Voltage	100	150	volts
Cathode-Bias Resistor	120	56	ohms
Amplification Factor	37	41	
Plate Resistance	6100	4800	ohms
Transconductance	6100	8500	μ hos
Plate Current	9	18	ma
Grid Voltage (Approx.) for plate current of 10 μ amp	-9	-12	volts

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